



Add-On for robot control software
CPRog

CANopen Master

Motor controllers with CANopen interface are available in a wide range of performance classes and form factors. This add-on allows the CPRog robot control software to be combined with these drives. This makes it very easy to combine your robot arms, gantries, delta robots or scara robots with the CPR controller.

Fields of application

- Robots with CANopen motor controllers: Robot arms, delta, portal and scara robots
- Mobile platforms and platform/arm combinations with CANopen drives

Technology

The CANopen add-on adds a CANopen hardware interface to the Commonplace Robotics robot controller. This allows robots to be implemented with a wide range of commercially available drive combinations.

The CANopen interface is based on EN 50325-4 and addresses electrical controls with the CiA402 device profile: CANopen device profile for drives and motion control. The operating modes IPO (Interpolated Position Mode) or CSP (Cyclic Synchronous Position) are used for motion, as well as homing for referencing. By operating on the embedded control or on a Linux PC with real-time patches a very good time response is achieved.

Functions

- Release of the motors
- Referencing according to preset method
- Position operation with adjustable reduction ratio
- Error handling and display to the robot controller

Compatible CANopen motor controls

Standard configurations are available for the following controllers:

- Nanotec CANopen controller or motors, e.g. C5-E oder CL3-E

We will be happy to create appropriate configurations for other control systems. They must correspond to type CiA402 and support one of the motion profiles IPO or CSP.

System requirements

- Commonplace Robotics Embedded Control 2.0 with a CAN-Shield, or
- PC running Ubuntu 18.04 LTS and PCAN-USB Adapter by Peak-Systeme

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